INTERNAL MEMORANDUM

Subject: Testimony Regarding Adoption of 2008 Electrical Code

To: Lonnie Robbins
Chief Administrative Officer

From: Robert J. Frances, P.E., Director
Department of Inspections, Licenses and Permits

Date: March 20, 2008

The Department of Inspections, Licenses, and Permits have proposed legislation to adopt the 2008 National Electrical Code (NEC) to become part of the Howard County Building Code. The intent of this legislation is to update the model code to the most recent edition. This will keep Howard County up to date with the latest codes that are currently being used in the electrical industry.

Very few changes have been made to modify the code. Any changes that were made are necessary to maintain our current practices and amendments. We have deleted part of the ground fault and arc-fault circuit interrupter legislation from the previous amendment because these two items are now currently addressed in the model code. Also, we have clarified language for homeowners that may apply for electrical permits.

The 2008 NEC has made two notable changes that will have a minor financial impact on the cost of construction. Arc-fault protection is now required throughout most of the residential occupancies which is different from the previous code where it was only required in bedrooms. The NEC will now require child tamper resistant receptacles throughout residential occupancies.

The code amendments, as proposed, have minor financial impact. I have attached a summary sheet of notable code changes that are different from the current adopted version of the NEC. If you have any questions, I can be reached at ext. 3946.

Copy: Donald L. Mock, P.E., Acting Chief, DILP Plan Review
Marilyn Weeks, Chief, DILP Operations
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2008 NATIONAL ELECTRICAL CODE (NEC) CHANGES

- **Major Change Summary**:

Section 210.4 Multi-wire Branch Circuits: *All ungrounded conductors must disconnect simultaneously where the circuit orginates.*

Section 210.8 (A)2 and (A)5: *All 125 volt, 15 and 20 amp receptacles in dwelling unit garages, accessory buildings and basements are required to have ground-fault circuit interrupter protection. The exceptions allowing inaccessible receptacles and receptacles for portable appliances to be exempt from GFI no longer applies.*

Section 210.8(B): *This revision expands the GFCI requirements to all 125 volt, single phase, 15 and 20 amp receptacles installed outdoors for other than dwelling units.*

Section 210.12(B): *This revision expands the requirement to use Arc-Fault Circuit-Interrupters to most areas and rooms in dwelling units with the exception of kitchens, bathrooms, garages and basements. The AFCI devices are now required to be listed combination-types. The previous code only required AFCI's in bedrooms.*

Section 250.32(B): *Equipment grounding conductors are required to be installed with* ***all*** *branch circuit and feeders supplying separate buildings or structures.*

Section 310.15(B)(2)(C): *Raceways and cables installed on rooftops exposed to direct sunlight are subject to correction factors in Table 310-15(B)(2)(c)*

Section 406.8(A)(B): *All standard receptacles installed outdoors are required to be weather-resistance type, "WR".*

Section 406.11: *Most receptacles in dwelling units are now required to be tamper-resistant type.*

Section 410.130(G): *Ballasted luminairs with double ended lamps are required to have a disconnect means. When connected to a multi-wire branch circuit, the disconnect must simultaneously open the ungrounded and grounded conductor.*

Section 645.5(F)(G): *Abandoned circuit and interconnecting cables must be removed unless specifically tagged for future use.*

Sections 680.22,34, 43, 62 and 71: *Receptacle outlet locations requiring minimum distances of five (5') feet or ten (10') feet have been changed to a consistent distance of six (6') feet.*

Section 680.26: *The entire section has been reorganized. The code now recognizes wire mesh as reinforcing steel. Also, perimeter surfaces now only require a single copper bonding conductor in certain circumstances.*

Section 708: *New article provides requirements for installation, operation, supervision, and maintenance of Critical Operation Power Systems. Some examples might include 911 centers, cell towers, police and emergency centers, etc.*

Section 800.100(B): *An intersystem bonding termination point is now specifically required at buildings or structures for bonding of all communication systems to the electrical system.*